

**Upper Roanoke River (Roanoke and Botetourt Counties, Cities of Roanoke and Salem, Town of Vinton)**  
**TMDL Implementation (Cleanup) Plan Development**

**Government Working Group – Meeting 1 Notes**

Tuesday, August 27, 2013, 10:00 a.m.

Virginia Department of Environmental Quality, 3019 Peters Creek Rd., Roanoke, VA

**Attendance:**

- ☐ Paula Nash - Virginia Department of Environmental Quality (DEQ)
- ☐ Mary Dail - Virginia Department of Environmental Quality (DEQ)
- ☐ Charlie Lunsford - Virginia Department of Environmental Quality (DEQ)
- ☐ Mike McEvoy - Western Virginia Water Authority
- ☐ Dave Burris - Virginia Department of Health (VDH)
- ☐ Dave Henderson - Roanoke County
- ☐ Chris Flannagan – Louis Berger Group
- ☐ Nick Tatalovich – Louis Berger Group
- ☐ Erin Hagan – Louis Berger Group
- ☐ Chuck VanAllman – City of Salem
- ☐ Carol Linkenhoker – Botetourt Co.
- ☐ John Burke – Gay and Neel, Inc.
- ☐ Roy Nester – Town of Christiansburg
- ☐ Kafi Howard – Town of Blacksburg
- ☐ Ed Wells – Roanoke Valley Alleghany Regional Commission
- ☐ Anita McMillan – Town of Vinton
- ☐ Christopher Blakeman – City of Roanoke
- ☐ Ashley Parks – EEE on behalf of VDOT
- ☐ Danielle Bishop – City of Roanoke
- ☐ Ian Shaw – City of Roanoke

**Welcome and Introductions**

Attendees introduced themselves. Mary Dail went over the agenda and mentioned that the contract for the Clean Up Plan now officially extends to the North Fork and South Fork Roanoke River subwatersheds. It is expected that once the working group meetings are completed for the first phase of the Clean Up plan, a similar effort will ensue in the North and South Fork Roanoke parts of the watershed. The decision has not yet been made regarding whether the two phases will be encompassed into one Clean up Plan or two. Mary explained that this working group meeting consists of a series of questions as well as highlights from the Residential (RWG), Agricultural (AWG) and Business (BWG) Working Group meetings.

**Sewage Handling and Disposal**

VDH gave an overview of their activities/programs related to correcting straight pipes and failing septic systems locally.

- Straight pipes and failing systems are addressed on a complaint basis.
- Repair is done by homeowners and VDH does not require pumpouts. There is a local ordinance that requires septic system pumpouts in areas of Franklin County within close proximity to Smith Mountain Lake. In addition, VDH does have a pump out program for boats on Smith Mountain Lake.
- VDH does not have an inspection program and there is no database that contains information about septic system applications.
- The VDH representative covers all of the localities in the Clean Up Plan except for Montgomery County.
- Charlie Lunsford spoke about the pump-out programs that are set up in the Chesapeake Bay.
- Annual inspections are required for alternative systems.

### **Septic System Discussion**

The TMDL assumed a septic system failure rate of 3% ([Upper Roanoke River Watershed Bacteria TMDL](#)) of the total septic systems in the watershed. The question was asked: In order to appropriately quantify the number of new systems or connections to public sewer that address septic system failures, do we need to adjust the estimated failure rate?

- The “failure” rate in the TMDL studies is based on VDH’s definition (i.e. sewage on the ground).
- The group discussed increasing the failure rate because the houses that the original failure rate estimates were based on (during TMDL development) are getting older.
- There is cost share when VDH states that there is a problem in a particular system. There are some cost-share funds available when VDH evaluation determines that septic failure may be affecting ground water. It is hard to eliminate the affects from septic systems on ground water.
- The City suggested that the 3% failure rate needs an expanded definition especially if it includes other potential sources like garbage “juice” (the liquid that leaks from dumpsters).
- TMDLs were developed using the age of homes and proximity to the stream in order to estimate the septic failure rates.
- The discussion about leaking dumpsters led the group to a conversation about food waste from local restaurants. Bedford County has a large scale composting facility. A couple of schools are trying to have zero food waste. The group agreed that food waste is not a source of bacteria.

- There is misconception with the public that if you have a drain field, that you don't need to pump out your septic system. Some people don't believe they should ever have a pump out especially if their system seems to be operating properly.
- There is a need for an educational program to inform the public about how to maintain septic systems.
- Homeowners can install a new septic system, as long as it meets the current requirements.
- In the neighboring Looney Creek watershed, pump outs were available at 50% cost share.
- There was discussion about using the Virginia revolving loan funding to target septic system repairs. The group decided it would be pertinent to put the Virginia revolving loan program in the Clean up Plan as a funding source. This funding is available to localities and was used in Loudoun County (Catocin Creek TMDL IP).

The question was asked about employing different septic system failure rates by locality/watersheds. The group did not have an immediate answer but will consider this question.

### **Straight Pipe Discussion**

Straight pipe estimates during TMDL development were 162 (Upper Roanoke River Bacteria TMDL) and 75 (Tinker, Glade areas) (0.04% estimated in the Cities of Roanoke and Salem. These estimates are based on a self-reported number from a question on the 1990 census. On the 1990 U.S. Census, people were asked what time of sewage disposal system that was associated with their home: sanitary sewer connection, septic system or "other". During TMDL development, the census data is interpreted the "other" to mean straight pipes. The 2000 and 2010 Census did not ask questions about sewage disposal (Louis Berger will confirm).

- Grey water discharges are a problem and are illegal. There are people that are requesting to be able to use grey water for reuse. VDH confirmed that grey water can be a source of bacteria.
- Pit privies are considered straight pipes during TMDL development (and with respect to negative effects on water quality).
- The question was asked about whether VDH maintains records of when a straight pipe is converted to septic system. VDH may just call this a septic repair. The VDH records may be done differently according to how the files are organized.
- The number of estimated straight pipes is conservative. It's very hard to find all the straight pipes that may be estimated in the TMDL. Clean Up plans are usually repair-focused.

Is it appropriate to assume that all new development that has occurred since approval of the TMDLs (2004 and 2006) has been connected to the sanitary sewer system?

The comment was made that Western VA Water Authority (WVWA) received Southern Rivers grant funds (now called Outside the Chesapeake Bay – OCB) to offer sewer connections in the Andrew Lewis neighborhood and to homes on a stretch of Fairhope Road. The question was asked about whether there are similar communities, subdivisions, etc. with a high number of failing septic systems that could be mentioned in the IP. These two areas complained to the WVWA and were targeted for sewer connection as a result. Some homeowners signed up initially but several more signed on once they saw the backhoes and sewer piping being installed.

- The Clearbrook area was a source of complaints. VDH tried to work with them but they could not get enough homeowners signed up. VDH offered to provide a list of areas that could be targeted if funding becomes available.
- Sewer connection is expensive and the localities requested targeted funds for assisting with the cost of sewer connection. There is some cost share money to help citizens (single family dwellings) connect to public sewer.
- *RWG suggested that Glade Creek and Laymantown areas are more likely to have failing septic systems.*
  - The group commented that at least in the Laymantown areas, soils and age of homes contribute to the high number of failing septic systems.

*RWG reported that there are no septic system maintenance ordinances. Roanoke Co. requires that houses within 300 feet of the sewer system connect.* Question was asked: Do other localities enforce a similar ordinance?

- Vinton: They have their own ordinances, they do not fall under Roanoke county, but they are concerned about the cost to connect to the sanitary sewer system.
- Salem: They require people to hook up, but there are some exceptions. Within 1000 ft. of the sewer line, the connection fee is \$1900. They take the hook up to the property line. Straight pipes are unlikely in Salem.
- Botetourt: There are ordinances on water, but not sure about Sewer.
- Roanoke City requires connection to the sewer system regardless of distance.
- WVWA evaluates about 10-12 sewer line requests per year. There is usually a good reason that they have not been connected.

*RWG: Stakeholders raised concerns about septage haulers improperly disposing of waste. A tracking system was suggested to ensure that pumped waste goes to the wastewater treatment plant.*

- The group confirmed the concern over the lack of a unified system of tracking septage loads.

- Peppers Ferry does not accept septage from all localities. They only serve a certain locality.
- The group was asked about options to address this problem from a locality-standpoint.

### **Sewer Overflows related to grease**

*BWG discussed grease and the associated Building Codes. The highest amounts of sewer overflows are related to grease.*

- Blacksburg assesses grease back-ups and fines responsible parties. They try to educate people that the grease causes a problem. They add the responsible parties to a list and target them for educational materials.
- Vinton's approach is similar to Blacksburg's. Vinton distributes information about proper grease disposal and commented that this approach had positive returns.
- City of Roanoke: Grease harvesting operations often have problems with accidental grease spillage. They are required to keep grease containers closed. They have seen a positive return on their outreach efforts.
- Salem is adopting FOG documentation. Currently they are cleaning without charging; however they are getting ready to change their approach. The repeat offenders are going to have to pay more because the infrastructure is becoming stressed with the repeat cleaning. Enforcement will probably be tied to building inspections.

### **Funding**

If grant funds are obtained to cost-share on addressing straight pipes and failing septic systems which local agency/organization would possibly be interested and best suited for this role?

- Southeast Rural Community Assistance Project (SERCAP)
- VDH
- Soil and Water Conservation Districts
- Roanoke Valley Alleghany Regional Commission
- TAP (Total Action against Poverty)
  - Western VA Water Authority noted that in the past they have not been able to receive grant money directly; they have worked with partners. The arrangement would depend on the grant.

### **Agricultural Programs**

The group briefly discussed the Agricultural piece of the Clean up Plan. It is notable that DCR is offering 100% cost share for stream exclusion in PY 2014 and 2015. To be eligible, farmers must first have an approved program year 2013 contract under VACS or TMDL funds. Stream exclusion is voluntary and the lifespan of the agreement is 10 years.

### **Stormwater Programs (Urban Runoff)**

The group discussed efforts underway through local stormwater programs that are addressing bacteria and sediment sources that should be referenced in the IP.

- Question was asked about what percentage of the problem in the TMDL is attributed to stormwater. It depends on the subwatershed, specifically impervious surfaces. An example is 85% in Lick Run, but some are as low as 25%.
- It was mentioned that the majority load is coming from septic system failures and pet waste in urban areas.
- The largest contributor of bacteria is generally from cattle in the stream.
- Wildlife is also a source in the MS4 area and can be addressed through education. More aggressive options for addressing wildlife are available if there is a nuisance population.
- Human influenced sources are targeted in Clean up Plans because those are the sources that stakeholders have the most control over.
- Bacteria can be linked to sediment but generally Best Management Practices that address both are preferable.
- Getting rid of sediment and nutrients may help with reducing bacteria.
- Streambank Stabilization Projects can be funded using the Water Quality Improvement Fund. The money is still there, but the distribution is done through an RFP process. 319 money is now competitive.
- 319 funds are for projects in areas outside of the MS4 conveyance system.
- Blacksburg partnered with VA Tech on a 319 fund proposal. They had to change their proposal because it included MS4 actions. The money was ultimately approved for use on land adjacent to the MS4, but not the MS4 area itself. Per Blacksburg, this makes it very difficult to adhere to MS4 regulation and IP development without being in conflict.
- The TMDL Load Allocation (LA) is addressed by Clean up plans. The TMDL Wasteload Allocations (WLAs) are addressed in MS4 permits and through other permitting programs.

*From RWG/AWG:*

- *Concerns were raised about the effectiveness of Erosion and Sediment (E&S) controls in the watersheds. Some stakeholders felt that E&S practices are not installed properly and some are not maintained properly. This problem may be exacerbated by limited numbers of inspectors and inspections, as well as the prevalence of highly erodible land available for new construction.*
- *Areas where erosion problems exist; include the Glebe Development and Sports Complex that put dirt on Etzler.*

*From BWG:*

- *The word, "Stormwater" is associated with a fee. Businesses are fearful of stormwater utility fees being implemented at the same time over multiple localities.*
- *Local governments are doing a better job monitoring E&SCs*
- *Williamson Road area needs more inlets*

## Existing BMPs

- Louis Berger has received data from all municipalities on Stormwater BMPs
- Louis Berger has received Agricultural BMP data from DCR

## Pet Waste

The group discussed local efforts to educate about and/or control pet waste?

- Vinton passes out brochures and at Veterinarian offices. Vinton has an ordinance that prohibits pets from defecating in other people's yards.
- In response to a complaint, Roanoke County sent letters to 200 homeowners asking that they not leave bagged pet waste in the storm drains.
- *RWG: Roanoke Co. sent out fliers to veterinarians offering information to educate pet owners on picking up waste.*
- *BWG suggested localities pass ordinances requiring pet owners to pick up after their pets.*
- One neighborhood in Christiansburg puts signs in neighborhoods where there are problems with pet-owners not picking up after pets.
- Sometimes grants can be written to maintain the pet waste kiosks. Parks and Rec departments maintain the kiosks on parts of the Greenway.
- Upper Roanoke Roundtable will provide the bags if localities/organizations request them.
- Vinton has volunteer groups that maintain the pet waste stations (adopt a section of the Greenway).

The group discussed which agency and/or organization would be appropriate to help with education to address the pet waste bacteria source?

- Parks and recreation departments
- Clean Valley Council
- Upper Roanoke River Roundtable
- Veterinarian offices, kennels, SPCA, Angels of Assissi (Vinton distributes information at Angels of Assissi events)
- Police Department/Animal Control officers
- Homeowners Associations – City representatives have good report with neighborhood associations.
- Roanoke County regularly has meetings with homeowners' associations, but not all HOAs participate
- PetSmart, Petco, Nature's Emporium

### **General Comments/Concerns:**

- Question about the business community concerns with respect to the stormwater utility fees. Businesses understood why a utility fee is necessary but they are concerned about how and when it will be implemented.
- City of Roanoke is going to impose Stormwater utility fee that is based on the percent of impervious cover. There is a crediting system in place for existing BMPs and is based on the VA Stormwater BMP Clearinghouse.
- DEQ discussed the Draft Guidance for the Chesapeake Bay Action Plan.
- There are concerns about funding. The 319 money is only a small amount of funding. Next meeting will focus on funding options.
- **Concerns written on the flipchart:**
  - Outreach is needed for straight pipe and septic system maintenance education.
  - Need to account for garbage “juice”
  - FUNDING
  - Topography, soils → BMPs need to be appropriate

### **For More Information**

- Contact Mary Dail, DEQ (540) 562-6715, [mary.dail@deq.virginia.gov](mailto:mary.dail@deq.virginia.gov).
- The TMDL studies that are addressed by this cleanup plan can be viewed at the following links:

<http://www.deq.virginia.gov/portals/0/DEQ/Water/TMDL/apptmdls/roankrvr/tinkerfc.pdf>  
<http://www.deq.virginia.gov/portals/0/DEQ/Water/TMDL/apptmdls/roankrvr/uroanec.pdf>  
<http://www.deq.virginia.gov/portals/0/DEQ/Water/TMDL/apptmdls/roankrvr/uroanbc.pdf>